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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,954	07/31/2006	Kathleen A. Clarkson	GC812US	8457

7590 10/16/2006

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EXAMINER	
CHOWDHURY, IQBAL HOSSAIN	

ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/565,954	CLARKSON ET AL.	
	Examiner	Art Unit	
	Iqbal H. Chowdhury, Ph.D.	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

This application is a 371 of PCT/US04/29575.

Claims 1-32 are pending.

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group, I claim(s) 1-10, drawn to an isolated polynucleotide encoding a polypeptide modified xylanase.

Group, II claim(s) 11-23, 24-26 and 27-29, drawn to an isolated modified polypeptide xylanase or modified enzymes.

Group, III claims 24-26 and 30-32, drawn to an isolated polypeptide family 12 cellulase.

For each inventions I-III above, restriction to one of the following is also required under 35 U.S.C. 121 and 372. Therefore, election is required of one of inventions I-III **and** one of inventions (A) – (AU).

(A). Clan C glycosyl hydrolase with substitution at position equivalent to position 2 of SEQ ID NO: 1.

(B). Clan C glycosyl hydrolase with substitution at position equivalent to position 5 of SEQ ID NO: 1.

(C). Clan C glycosyl hydrolase with substitution at position equivalent to position 7 of SEQ ID NO: 1.

(D). Clan C glycosyl hydrolase with substitution at position equivalent to position 10 of SEQ ID NO: 1.

(E). Clan C glycosyl hydrolase with substitution at position equivalent to position 11 of SEQ ID NO: 1.

(F). Clan C glycosyl hydrolase with substitution at position equivalent to position 16 of SEQ ID NO: 1.

(G). Clan C glycosyl hydrolase with substitution at position equivalent to position 19 of SEQ ID NO: 1.

(H). Clan C glycosyl hydrolase with substitution at position equivalent to position 22 of SEQ ID NO: 1.

(I). Clan C glycosyl hydrolase with substitution at position equivalent to position 26 of SEQ ID NO: 1.

(J). Clan C glycosyl hydrolase with substitution at position equivalent to position 28 of SEQ ID NO: 1.

(K). Clan C glycosyl hydrolase with substitution at position equivalent to position 29 of SEQ ID NO: 1.

(L). Clan C glycosyl hydrolase with substitution at position equivalent to position 30 of SEQ ID NO: 1.

(M). Clan C glycosyl hydrolase with substitution at position equivalent to position 34 of SEQ ID NO: 1.

(N). Clan C glycosyl hydrolase with substitution at position equivalent to position 36 of SEQ ID NO: 1.

(O). Clan C glycosyl hydrolase with substitution at position equivalent to position 38 of SEQ ID NO: 1.

(P). Clan C glycosyl hydrolase with substitution at position equivalent to position 57 of SEQ ID NO: 1.

(Q). Clan C glycosyl hydrolase with substitution at position equivalent to position 58 of SEQ ID NO: 1.

(R). Clan C glycosyl hydrolase with substitution at position equivalent to position 61 of SEQ ID NO: 1.

(S). Clan C glycosyl hydrolase with substitution at position equivalent to position 63 of SEQ ID NO: 1.

(T). Clan C glycosyl hydrolase with substitution at position equivalent to position 65 of SEQ ID NO: 1.

(U). Clan C glycosyl hydrolase with substitution at position equivalent to position 67 of SEQ ID NO: 1.

(V). Clan C glycosyl hydrolase with substitution at position equivalent to position 92 of SEQ ID NO: 1.

(W). Clan C glycosyl hydrolase with substitution at position equivalent to position 93 of SEQ ID NO: 1.

(X). Clan C glycosyl hydrolase with substitution at position equivalent to position 97 of SEQ ID NO: 1.

(Y). Clan C glycosyl hydrolase with substitution at position equivalent to position 105 of SEQ ID NO: 1.

(Z). Clan C glycosyl hydrolase with substitution at position equivalent to position 108 of SEQ ID NO: 1.

(AA). Clan C glycosyl hydrolase with substitution at position equivalent to position 110 of SEQ ID NO: 1.

(AB). Clan C glycosyl hydrolase with substitution at position equivalent to position 111 of SEQ ID NO: 1.

(AC). Clan C glycosyl hydrolase with substitution at position equivalent to position 113 of SEQ ID NO: 1.

(AD). Clan C glycosyl hydrolase with substitution at position equivalent to position 132 of SEQ ID NO: 1.

(AE). Clan C glycosyl hydrolase with substitution at position equivalent to position 143 of SEQ ID NO: 1.

(AF). Clan C glycosyl hydrolase with substitution at position equivalent to position 144 of SEQ ID NO: 1.

(AG). Clan C glycosyl hydrolase with substitution at position equivalent to position 147 of SEQ ID NO: 1.

(AH). Clan C glycosyl hydrolase with substitution at position equivalent to position 149 of SEQ ID NO: 1.

(AI). Clan C glycosyl hydrolase with substitution at position equivalent to position 151 of SEQ ID NO: 1.

(AJ). Clan C glycosyl hydrolase with substitution at position equivalent to position 153 of SEQ ID NO: 1.

(AK). Clan C glycosyl hydrolase with substitution at position equivalent to position 157 of SEQ ID NO: 1.

(AL). Clan C glycosyl hydrolase with substitution at position equivalent to position 160 of SEQ ID NO: 1.

(AM). Clan C glycosyl hydrolase with substitution at position equivalent to position 162 of SEQ ID NO: 1.

(AN). Clan C glycosyl hydrolase with substitution at position equivalent to position 165 of SEQ ID NO: 1.

(AO). Clan C glycosyl hydrolase with substitution at position equivalent to position 169 of SEQ ID NO: 1.

(AP). Clan C glycosyl hydrolase with substitution at position equivalent to position 180 of SEQ ID NO: 1.

(AQ). Clan C glycosyl hydrolase with substitution at position equivalent to position 184 of SEQ ID NO: 1.

(AR). Clan C glycosyl hydrolase with substitution at position 186 equivalent to position 186 of SEQ ID NO: 1.

(AS). Clan C glycosyl hydrolase with substitution at position equivalent to position 188 of SEQ ID NO: 1.

(AT). Clan C glycosyl hydrolase with substitution at position equivalent to position 190 of SEQ ID NO: 1.

(AU). Clan C glycosyl hydrolase with substitution at position equivalent to position 191 of SEQ ID NO: 1.

2. The inventions listed as Groups I - III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The polynucleotide encoding a polypeptide xylanase of Group I, polypeptide xylanase of Group II and cellulase of Group III are each unrelated and chemically distinct entities. The only shared technical feature of these groups is that they all relate to polynucleotide encoding a polypeptide xylanase. However, this shared technical feature is not a "special technical feature" as defined by PCT Rule 13.2 as it does not define a contribution over the art. Fenel et al. (WO01/27252 A1, publication 4/19/2001). Thus, a DNA encoding a xylanase protein does not make contribution over the prior art. Fenel et al. also disclose glycosyl hydrolase protein and family II xylanase

3. The nucleic acid and proteins of Group (A)-(AU) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different nucleotides encoding proteins of Group (A)-(O), which are polypeptides having xylanase, hydrolase, family 11 xylanase, family 12 cellulase activity, do not have special technical feature among each other because they all represent structurally different polypeptides and polynucleotide encoding them. As mentioned above, a DNA encoding a

polypeptide having xylanase, hydrolase, family 11 xylanase, family 12 cellulase activity proteins is known in the art and does not make contribution over the prior art. Therefore, they all lack special technical feature.

37 CFR 1.475 does not provide for multiple products and/or methods within a single application. Therefore, inventions of Group I - III lack unity of invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iqbal Chowdhury whose telephone number is 571-272-8137. The examiner can normally be reached on 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 703-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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